

least an amino acid sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, immunogenic fragments thereof, and SEQ ID NO:7.

23. (New) The composition of claim 22, wherein said antibody or binding fragment specifically binds to the polypeptide having at least an amino acid sequence of SEQ ID NO:2.

24. (New) The composition of claim 22 which is comprised of a polyclonal antibody.

25. (New) The composition of claim 22 which is comprised of a monoclonal antibody.

26. (New) The composition of claim 22 which is comprised of a humanized mouse monoclonal antibody.

61 27. (New) The composition of claim 22 which is comprised of an antibody of human origin.

28. (New) The composition of claim 25, wherein said monoclonal antibody is produced by hybridoma I-2576.

29. (New) The composition of claim 22, wherein said antibody or binding fragment is capable of modulating NK cell activation.

30. (New) The composition of claim 22, wherein said antibody or binding fragment is capable of increasing NK cell activation.

31. (New) The composition of claim 22, wherein said antibody or binding fragment is capable of inducing cytotoxicity mediated by a NK cell on a Fc-receptor positive target cell.

32. (New) The composition of claim 22 which is comprised of an antibody fragment selected from the group consisting of Fab fragment, F(ab')<sub>2</sub> fragment, and Fv fragment, wherein said antibody fragment is capable of modulating NK cell function.

33. (New) The composition of claim 32, wherein said antibody fragment is capable of blocking NK cell cytotoxicity.

34. (New) The composition of claim 22, wherein said antibody or fragment thereof is coupled to a label.

35. (New) The composition of claim 34, wherein said label is a fluorescent label.

36. (New) The composition of claim 22, wherein said antibody or fragment thereof is attached to a solid support.

81

37. (New) The composition of claim 36, wherein said solid support is selected from the group consisting of paramagnetic microsphere, submicroscopic MACS microbead, semi-permeable substrate consisting of an array of hollow fibers, and dense particle.

38. (New) The composition of claim 36, wherein an antibody selected from the group consisting of anti-NKp46 and anti-NKp44 antibodies is further attached to said solid support.

39. (New) A bispecific binding composition, wherein said composition is comprised of an antibody or binding fragment thereof according to claim 22, and another antibody or binding fragment thereof which specifically binds to an antigen selected from the group consisting of tumor antigen, viral antigen, and microorganism antigen; wherein said composition is capable of enhancing NK cell cytotoxicity towards abnormal cells displaying at least one of said antigen.

40. (New) A method for detecting and/or quantifying the presence of NK cells in a biological sample, comprising:

- contacting the biological sample with a binding composition according to claim 22, 34 or 36; and
- detecting and/or quantifying the presence of NK cells from immune complexes thus formed.

41. (New) A kit for detecting and/or quantifying NK cells from a biological sample comprising a binding composition according to claim 22, said binding composition being enclosed in a container.

42. (New) A kit according to claim 41, which further comprises an antibody selected from the group consisting of anti-NKp46 antibodies and anti-NKp44 antibodies.

43. (New) A method for the selective removal of NK cells from a biological sample, comprising:

- contacting the biological sample with an antibody or binding fragment thereof according to claim 22, 34 or 36, and
- detecting and/or quantifying the immune complex thus formed.

81 44. (New) A method for the positive and selective purification of NK cells from biological sample, comprising:

- contacting the biological sample with an isolated antibody according to claim 22, 34 or 36, and
- detecting and/or quantifying the immune complex thus formed.

45. (New) A kit for removing and/or positively purifying NK cells from a biological sample comprising at least one isolated antibody according to claim 22, 34 or 36, and said isolated antibody being enclosed in a container.

46. (New) A kit according to claim 45, which further comprises an antibody selected from the group consisting of anti-NKp46 antibodies and anti-NKp44 antibodies.

47. (New) A method for the stimulation of NK cell cytotoxicity, comprising:

- contacting said NK cells with a sufficient amount of an isolated antibody according to claim 22, 34 or 36, under conditions allowing antibody-mediated cross-linking of NKp30.

48. (New) A kit for stimulating NK cell cytotoxicity, comprising:

- a least one isolated antibody according to claim 22, 34, 36 or 39, said isolated antibody being enclosed in a container.

49. (New) A kit according to claim 48, which further comprises an antibody selected from the group consisting of anti-NKp46 antibodies and anti-NKp44 antibodies.

50. (New) A method for the inhibition of NK cell cytotoxicity, comprising:

- contacting said NK cells with an antibody according to claim 22, 34 or 36, under conditions allowing antibody-mediated NKp30 masking.

51. (New) A kit for inhibiting NK cell cytotoxicity which comprises an antibody fragment according to claim 32.

52. (New) A pharmaceutical composition comprising an effective amount of a binding composition according to claim 22, in association with a pharmaceutical acceptable carrier.

53. (New) A pharmaceutical composition comprising an effective amount of the isolated NK cells obtained by the purification method according to claim 44, in association with a pharmaceutically acceptable carrier.

54. (New) The pharmaceutical composition according to claim 53, wherein said isolated NK cells have been collected from a human.

55. (New) A pharmaceutical composition comprising an effective amount of the isolated NK cells obtained by the stimulation according to claim 47, in association with a pharmaceutically acceptable carrier.

56. (New) The pharmaceutical composition according to claim 55, wherein said isolated NK cells have been collected from a human.

57. (New) The pharmaceutical composition according to claim 52, further comprising an antibody selected from the group consisting of anti-NKp46 antibodies and anti-NKp44 antibodies.

58. (New) A method for grafting enhancement, GvH inhibition, GvT stimulation, and/or for the prevention, palliation, and/or therapy of a tumor and/or of microorganism infection, comprising the use of a therapeutically amount of a pharmaceutical composition according to claim 52.

59. (New) A method for treating melanoma, hepatocarcinoma, and/or lung adenocarcinoma, comprising the use of a therapeutically amount of a pharmaceutical composition according to claim 52.

---